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Douglas W. Wager

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SHOOK, HARDY & BACON L.L.P.  
Intellectual Property Department  
2555 GRAND BOULEVARD  
KANSAS CITY, MO 64108-2613

EXAMINER

RAJ, RAJIV J

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/679,836	<b>Applicant(s)</b> WAGER ET AL.	
	<b>Examiner</b> RAJIV J. RAJ	<b>Art Unit</b> 3686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. This action is in reply to the application filed on 04 November 2008.
2. Claims 1-4, 12, 25, 30 and 39-40 have been amended.
3. Claims 1-48 are currently pending and have been examined.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. In light of the amendments to claims 39 & 40, the previous rejection under 35 U.S.C. 101, is withdrawn.
6. Claims 1-24 & 39-40 are rejected under 35 U.S.C. 101 based on Supreme Court precedent, and recent Federal Circuit decisions, a § 101 process must (1) be tied to a machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876). The process steps in claims (1-24 & 39-40) are not tied to a machine nor do they execute a transformation. Thus, they are non-statutory.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. In light of the amendments to claims 39 & 40, the previous rejection under 35 U.S.C. 112, is withdrawn.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-5, 7-17, & 19-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe (US 6061657) in view of Pollack (US 5809477) in further view of Andre et al. (US 7155399 B2) (hereinafter Andre).

**12. Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

**As per claim 1**

**Whiting-O'Keefe as shown, teaches the following limitation:**

- *utilizing the data to calculate a work score for each of the one or more patients* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *obtaining data for one or more patients directly from a primary clinical information systems* (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these features into Whiting-O'Keefe with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score indicates a quantity of personnel hours anticipated to serve each of the one or more patients;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)
- *storing the work score;* (see at least Andre Claim:13 Fig:3 Item:202-208, 214 & related text)

It would have been obvious to one of ordinary skill in the art to add these features of Andre into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing an improved invention for assessing, determining and implementing appropriate staff to provide the best service for users, such as customers, clients and patients. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

**As per claim 2**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *receiving a request for a work score for each of the one or more patients* (see at least Whiting-O'Keefe Fig:2 Items:17 & related text)

**As per claim 3**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 2. Whiting-O'Keefe discloses the following limitation:

- *obtaining factors that indicate work for each of the one or more patients* (see at least Whiting-O'Keefe Fig:5B Items:53-59 & related text)

**As per claim 4**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 3. Whiting-O'Keefe discloses the following limitation:

- *determining which of the factors are triggered by the data for each of the one or more patients* (see at least Whiting-O'Keefe Claim:19)

**As per claim 5**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 4. Pollack discloses the following limitation:

- *each factor has one or more assigned values* (see at least Pollack Column:17 Line:67 & Column:18 Lines:1-5 "At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above")

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 7**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 5. Whiting-O'Keefe discloses the following limitation:

- *obtaining rules for generating a work score for each of the one or more patients*  
(see at least Whiting-O'Keefe Column:8 Lines:45-62)

**As per claim 8**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 7. Whiting-O'Keefe discloses the following limitation:

- *utilizing the rules and triggered factor values to generate a work score for each of the one or more patients* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

**As per claim 9**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *the data is one of outstanding orders, outstanding tasks, completed orders, completed tasks, services provided by personnel over a period of time, scheduled procedures, scheduled outpatient care, assigned tasks, assigned orders, assessments, tasks, services typically delivered for a specific patient or patient type and combinations thereof* (see at least Whiting-O'Keefe Column:4 Lines:50-67)

**As per claim 10**



The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *wherein the work score is prospective* (see at least Whiting-O'Keefe Fig:10 Items:193 & related text)

**As per claim 11**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 1. Whiting-O'Keefe discloses the following limitation:

- *wherein the work score is retrospective* (see at least Whiting-O'Keefe Fig:10 Items:191 & related text)

**As per claim 12**

**Whiting-O'Keefe as shown, teaches the following limitation:**

- *utilizing data obtained directly from a primary clinical information system to calculate a work score for patient in a patient population* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *calculating staffing needs for the population based on the work scores obtained for the patients in the patient population* (see at least Pollack Claim:1 (b)-(d))

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these features into Whiting-O'Keefe with the motivation of providing higher quality medical

care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score indicates a quantity of personnel hours anticipated to serve each of the one or more patients;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)
- *storing the work score;* (see at least Andre Claim:13 Fig:3 Item:202-208, 214 & related text)

It would have been obvious to one of ordinary skill in the art to add these features of Andre into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing an improved invention for assessing, determining and implementing appropriate staff to provide the best service for users, such as customers, clients and patients. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

### **As per claim 13**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 12. Whiting-O'Keefe discloses the following limitation:

- *wherein the work score is retrospective* (see at least Whiting-O'Keefe Fig:1 A-C)

### **As per claim 14**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 13. Whiting-O'Keefe discloses the following limitation:

- *determining the patients in the population* (see at least Whiting-O'Keefe Fig:3 Item:31)

**As per claim 15**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 14. Whiting-O'Keefe discloses the following limitation:

- *obtaining the work factors for the population* (see at least Whiting-O'Keefe Fig:3 Item:33-37)

**As per claim 16**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 15. Whiting-O'Keefe discloses the following limitation:

- *determining which of the factors are triggered by the data for each patient in the population* (see at least Whiting-O'Keefe Claim:20 "solving an estimate model of a total amount of charges for the encounters within a summary record as a function of a plurality of model variables and regression coefficients taken or derivable from the data within said at least one summary record, said regression coefficients having been previously determined with the same estimate model to optimize a fit of said estimate model for a population of patients with data within a summary record corresponding to said at least one summary record)

**As per claim 17**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 15. Pollack discloses the following limitation:

- *wherein each factor has an assigned value (see at least Pollack Column:17 Line:67 & Column:18 Lines:1-5 “At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above”)*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O’Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O’Keefe/Pollack/Andre with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 19**

The combination of Whiting-O’Keefe/Pollack/Andre discloses all of the limitations of claim 17. Whiting-O’Keefe discloses the following limitation:

- *obtaining rules for generating a work score for each patient in the population (see at least Whiting-O’Keefe Column:8 Lines:45-62)*

**As per claim 20**

The combination of Whiting-O’Keefe/Pollack/Andre discloses all of the limitations of claim 19. Whiting-O’Keefe discloses the following limitation:

- *utilizing the rules and triggered factor values to generate a work score for each patient in the population* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

**As per claim 21**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 20. Whiting-O'Keefe discloses the following limitation:

- *accumulating the work scores for all patients in the population* (see at least Whiting-O'Keefe Claim:17)

**As per claim 22**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 21. Pollack discloses the following limitation:

- *obtaining staffing standards for the population* (see at least Pollack Fig:2 Items:220 Fig:6 Items:645 & related text)

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 23**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 22. Pollack discloses the following limitation:

- *calculating staffing needs based on the work scores obtained for the patients in the patient population and the staffing standards for the population (see at least Pollack Claim:1 (b)-(d))*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 24**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 12. Whiting-O'Keefe discloses the following limitation:

- *the data is one of outstanding orders, outstanding tasks, completed orders, completed tasks, services provided by personnel over a period of time, scheduled procedures, scheduled outpatient care, assigned tasks, assigned orders, assessments, tasks, services typically delivered for a specific patient or patient type and combinations thereof (see at least Whiting-O'Keefe Column:4 Lines:50-67)*

**As per claim 25**

**Whiting-O'Keefe as shown, teaches the following limitation:**

- *means for utilizing the data to calculate a work score for the one or more patients (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)*

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *means for obtaining data for one or more patients directly from a primary clinical information systems* (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these features into Whiting-O'Keefe with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score indicates a quantity of personnel hours anticipated to serve each of the one or more patients by a healthcare provider;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)

It would have been obvious to one of ordinary skill in the art to add these features of Andre into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing an improved invention for assessing, determining and implementing appropriate staff to provide the best service for users, such as customers, clients and patients. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

**As per claim 26**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 25. Whiting-O'Keefe discloses the following limitation:

- *means for obtaining factors that indicate work for the one or more patients (see at least Whiting-O'Keefe Fig:5B Items:53-59 & related text)*

**As per claim 27**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 26. Whiting-O'Keefe discloses the following limitation:

- *mean for determining which of the factors are triggered by the data for the one or more patients (see at least Whiting-O'Keefe Claim:19)*

**As per claim 28**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 27. Whiting-O'Keefe discloses the following limitation:

- *means for obtaining rules for generating a work score for each of the one or more patients (see at least Whiting-O'Keefe Column:8 Lines:45-62)*

**As per claim 29**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 28. Whiting-O'Keefe discloses the following limitation:

- *means for utilizing the rules and triggered factor values to generate a work score for each of the one or more patients (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)*

**As per claim 30**



**Whiting-O'Keefe as shown, teaches the following limitation:**

- *means for utilizing the data to calculate a work score for the one or more patients*  
(see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *means for calculating staffing needs for a population based on the work scores obtained for the patients in the patient population* (see at least Pollack Claim:1 (b)-(d))

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these features into Whiting-O'Keefe with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the works score is a value to indicate an amount of work required to serve each patient of the patient population;* (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)

It would have been obvious to one of ordinary skill in the art to add these features of Andre into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing an improved invention for assessing, determining and implementing appropriate staff

to provide the best service for users, such as customers, clients and patients. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

**As per claim 31**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 30. Whiting-O'Keefe discloses the following limitation:

- *means for determining the patients in the population* (see at least Whiting-O'Keefe Fig:3 Item:31)

**As per claim 32**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 31. Whiting-O'Keefe discloses the following limitation:

- *means for obtaining the work factors for the population* (see at least Whiting-O'Keefe Fig:3 Item:33-37)

**As per claim 33**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 32. Whiting-O'Keefe discloses the following limitation:

- *determining which of the factors are triggered by the data for each patient in the population* (see at least Whiting-O'Keefe Claim:20 "solving an estimate model of a total amount of charges for the encounters within a summary record as a function of a plurality of model variables and regression coefficients taken or derivable from the data within said at least one summary record, said regression coefficients having been previously determined with the same estimate model to

optimize a fit of said estimate model for a population of patients with data within a summary record corresponding to said at least one summary record)

**As per claim 34**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 33. Whiting-O'Keefe discloses the following limitation:

- *means for obtaining rules for generating a work score for each patient in the population* (see at least Whiting-O'Keefe Column:8 Lines:45-62)

**As per claim 35**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 34. Whiting-O'Keefe discloses the following limitation:

- *means for utilizing the rules and triggered factor values to generate a work score for each patient in the population* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)

**As per claim 36**

The combination of Whiting-O'Keefe/Pollack/Andre ck discloses all of the limitations of claim 35. Whiting-O'Keefe discloses the following limitation:

- *means for accumulating the work scores for all patients in the population* (see at least Whiting-O'Keefe Claim:17)

**As per claim 37**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 36. Pollack discloses the following limitation:

- *means for obtaining staffing standards for the population (see at least Pollack Fig:2 Items:220 Fig:6 Items:645 & related text)*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 38**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 37. Pollack discloses the following limitation:

- *means for calculating staffing needs based on the work scores obtained for the patients in the patient population and the staffing standards for the population (see at least Pollack Claim:1 (b)-(d))*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 39**

**Whiting-O'Keefe as shown, teaches the following limitation:**

- *utilizing the data to calculate a work score for the one or more patients (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)*

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *obtaining data for one or more patients directly from a primary clinical information systems (see at least Pollack Fig:2 Item:210 Fig:3 Item:310 & related text)*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these features into Whiting-O'Keefe with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein work includes a measure personnel hours anticipated for the one or more patients; (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)*

It would have been obvious to one of ordinary skill in the art to add these features of Andre into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing an improved invention for assessing, determining and implementing appropriate staff to provide the best service for users, such as customers, clients and patients. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

**As per claim 40**

**Whiting-O'Keefe as shown, teaches the following limitation:**

- *utilizing data obtained directly from a primary clinical information system to calculate a work score for each patient in a patient population (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)*

Whiting-O'Keefe fails to teach the following limitations, however Pollack does:

- *calculating staffing needs for the patient population based on the work scores obtained for the each patient in the patient population (see at least Pollack Claim:1 (b)-(d))*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these features into Whiting-O'Keefe with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

Whiting-O'Keefe/Pollack fails to teach the following limitations, however Andre does:

- *wherein the work score is a quantity of personnel hours required to serve each patient in the patient population by a healthcare provider; (see at least Andre Fig:2 Items:402-428 Fig:3 Item:202-208, 214 Fig:4 Items:310, 320 & related text)*

It would have been obvious to one of ordinary skill in the art to add these features of Andre into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing an improved invention for assessing, determining and implementing appropriate staff

to provide the best service for users, such as customers, clients and patients. (see at least Andre Column:2 Lines:52-67 Column:3 Lines:1-3)

13. Claims 6 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Pollack in view of Andre in further view of Richardson et al. (US 6193654 B1) (hereinafter Richardson).

**As per claim 6**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 5. Richardson further discloses the following limitation:

- *adjusting the value of one or more triggered factors based on rules if needed* (see at least Richardson Claim:19 (g) "At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above")

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing optimal healthcare through accurate monitoring of medical parameters. (see at least Richardson Column:3 Lines:36-48)

**As per claim 18**

The combination of Whiting-O'Keefe/Pollack/Andre discloses all of the limitations of claim 17. Richardson further discloses the following limitation:

- *adjusting the value of one or more triggered factors based on rules if needed* (see at least Richardson Claim:19 (g) "At Item 320, a numerical value based on patient information is assigned for each category of diagnostic information and for each group of categories. Rules and guidelines for the assignment of numerical values are set forth in the detailed descriptions of the scoring methodologies set forth above")

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack/Andre. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack/Andre with the motivation of providing optimal healthcare through accurate monitoring of medical parameters. (see at least Richardson Column:3 Lines:36-48)

14. Claims 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski (US 2003/0101076 A1).

**As per claim 41**

**Whiting-O'Keefe as shown, teaches the following limitation:**

- *a work calculation module for calculating a work score for one or more patients;* (see at least Whiting-O'Keefe Fig:2 Items:17-29 Fig:3 & related text)



System claim 41 repeats the subject matter of method claim 1 respectively, as a system rather than a series of steps. As the underlying process of claim 1 has been shown to be fully disclosed by the teachings of Whiting-O'Keefe in the above rejection of claim 1, it is readily apparent that the limitations disclosed by Whiting-O'Keefe include the apparatus to perform these functions. As such, these limitations are rejected for the same reasons given above for method claim 1 and incorporated herein.

- *a demand forecast module for forecasting the volume and type of patients who will present; (see at least Whiting-O'Keefe Fig:3 Items:43-45 & related text)*
- *a resource dashboard module for displaying information regarding personnel and patients (see at least Whiting-O'Keefe Fig:9 Items:163, 175-179 & related text)*

Whiting-O'Keefe fails to teach the following limitations, however Zaleski does:

- *a staff scheduling and staffing module for identifying healthcare personnel positions to be filled; (see at least Zaleski [0007], Fig:1 Items:108, 109 & related text)*
- *role management module for managing the roles and information regarding personnel; (see at least Zaleski [0005]-[0007])*
- *a workforce outcomes module for determining how effectively healthcare personnel have been used; (see at least Zaleski [0005]-[0007])*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe. One of ordinary skill in the art would have added these

features into Whiting-O'Keefe with the motivation of providing system for improved clinical decision making, in order to provide more efficient and effective healthcare. (see at least Zaleski [0012])

15. Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski in further view of Ross, Jr. et al. (US 7076436 B1) (hereinafter Ross).

**As per claim 42**

The combination of Whiting-O'Keefe/Zaleski discloses all of the limitations of claim 41. Ross further discloses the following limitation:

- *an enterprise scheduling module for identifying information regarding appointments for outpatient procedures* (see at least Ross Fig:4 Items:102, 116-118 & related text)

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Zaleski. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Zaleski with the motivation of providing more accuracy of patients and medical resources in order to allow more effective care by hospital personnel. (see at least Ross Column:1 Lines:9-13)

**As per claim 43**

The combination of Whiting-O'Keefe/Zaleski discloses all of the limitations of claim 42. Ross further discloses the following limitation:

- *an enterprise scheduling module for identifying information regarding appointments for outpatient procedures (see at least Ross Fig:7 Items:138 & related text)*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Zaleski. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Zaleski with the motivation of providing more accuracy of patients and medical resources in order to allow more effective care by hospital personnel. (see at least Ross Column:1 Lines:9-13)

16. Claims 44 & 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski, in view of Ross, in further view of Richardson.

**As per claim 44**

The combination of Whiting-O'Keefe/Zaleski/Ross discloses all of the limitations of claim 43. Richardson further discloses the following limitation:

- *a registration module for identifying and tracking patient registration, census and activity (see at least Richardson Column:6 Lines:45-54)*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Pollack. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Pollack with the motivation of providing optimal healthcare through accurate monitoring of medical parameters. (see at least Richardson Column:3 Lines:36-48)

**As per claim 45**

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson discloses all of the limitations of claim 44. Whiting-O'Keefe further discloses the following limitation:

- *a medical records module for capturing and storing patient data (see at least Whiting-O'Keefe Column:7 Lines:34-47 Fig:9 Items:161-179 & related text)*

17. Claims 46 & 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski, in view of Ross, in view of Richardson, in further view of Pollack.

**As per claim 46**

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson discloses all of the limitations of claim 45. Pollack further discloses the following limitation:

- *a patient severity module for providing information regarding the status and conditions of patients (see at least Pollack Column:9 Lines:49-51, Fig:3, & related text)*

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Zaleski/Richardson/Ross. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Zaleski/Richardson/Ross with the motivation of providing higher quality medical care while being more efficient with medical resources. (see at least Pollack Column:3 Lines:30-38)

**As per claim 47**

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson discloses all of the limitations of claim 46. Ross further discloses the following limitation:

- *a departmental tracking module for tracking patients through different departments* (see at least Ross Fig:2 Item:102 & related text)

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Zaleski/Richardson/Ross. One of ordinary skill in the art would have added these features into Whiting-O'Keefe/Zaleski/Richardson/Ross with the motivation of providing more accuracy of patients and medical resources in order to allow more effective care by hospital personnel. (see at least Ross Column:1 Lines:9-13)

18.Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whiting-O'Keefe in view of Zaleski, in view of Ross, in view of Richardson, in view of Pollack, in further view of Brandt et al. (US 2003/0050797 A1) (hereinafter Brandt).

**As per claim 48**

The combination of Whiting-O'Keefe/Zaleski/Ross/Richardson/Pollack discloses all of the limitations of claim 47. Brandt further discloses the following limitation:

- *a personal work queue module for tracking and displaying work to be performed by individual personnel* (see at least Brandt [0005])

It would have been obvious to one of ordinary skill in the art to add these features into Whiting-O'Keefe/Zaleski/Ross/Richardson/Pollack. One of ordinary skill in the

art would have added these features into Whiting-O'Keefe/Zaleski/Ross/Richardson/Pollack with the motivation of providing optimal workflow management in a healthcare setting for efficient and effective healthcare for patients. (see at least Brandt [0004])

### ***Response to Arguments***

19. Applicant's arguments received on 04 November 2008 have been fully considered but they are not persuasive. Applicants' arguments will be addressed herein below in the order in which they appear in the response filed 04 November 2008.

20. As per Applicant's argument that the cited prior art, in claim 1, fails to disclose *"utilizing data to calculate a work score for each of the one or more patients, wherein the work score indicates a quantity of personnel hours anticipated to serve each of the one or more patients"*, Examiner points out that this limitation, as well as the entirety of claim one, included substantially amended and added language, which is why it was not addressed in the previous Office Action. Examiner maintains the rejection of claim 1 in light of the currently cited prior art taken as a whole in combination with each other.

21. As per Applicant's argument that prior art reference, Pollack, fails to properly address the limitation(s) of claim 1, Examiner respectfully disagrees. Applicant states that Pollack fails to teach or suggest *"wherein the work score indicates a*

*quantity of personnel hours anticipated to serve each of the one or more patients”,* examiner this limitation, as well as the entirety of claim one, included substantially amended and added language, which is why it was not addressed in the previous Office Action. Examiner maintains the rejection of claim 1 in light of the currently cited prior art taken as a whole and in combination with each other. Further, Examiner respectfully disagrees with Applicant’s position that the rejection of Claim 1, under 35 U.S.C. 101, should be withdrawn because Pollack is directed to a different purpose as Applicant’s invention. In response to applicant’s argument that Pollack is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Pollack is directed to an invention for allocating medical resources in a hospital setting, and more importantly Pollack reads on the limitation(s) of claim 1.

22. Applicant’s arguments for claims 2-5 & 7-11 are based on the dependency of claim 1, and thus are rejected for the same reason(s).

23. Applicant’s argument(s) for claim 12 are substantially similar to Applicant’s arguments for claim 1, and thus are rejected on the same grounds.

24. Applicant’s arguments for claims 13-24 are based on the dependency of claim 12, and thus are rejected for the same reason(s).

25. Applicant's argument(s) for claims 25, 30 and 39-40 are substantially similar to Applicant's arguments for claims 1 & 12, and thus are rejected on the same grounds.

26. Applicant's arguments for claims 26-29 & 31-38 are based on the dependency of claims 25 & 30, and thus are rejected for the same reason(s).

27. Applicant's arguments for claims 6 & 18 are based on the dependency of claims 1 & 12, and thus are rejected for the same reason(s).

28. Examiner respectfully disagrees with Applicant's position that the rejection of Claim 41, under 35 U.S.C. 101, should be withdrawn because Zaleski is directed to a different purpose as Applicant's invention. In response to applicant's argument that Zaleski is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Zaleski reads on the problems addressed in claim 41.

29. Applicant's argument(s) for claim 41 that are substantially similar to Applicant's arguments for claims 1 & 12, are rejected on the same grounds.

30. As per Applicant's argument that prior art reference Zaleski fails to teach the language of claim 41 (i.e. *a staff scheduling and staffing module for identifying healthcare personnel positions to be filled*), Examiner has consider Applicant's



arguments and they are not persuasive, thus Examiner maintains the rejection of claim 41 based on the cited prior art.

31. As per Applicant's argument that prior art reference Zaleski fails to teach the language of claim 41 (i.e. *role management module for managing the roles and information regarding personnel*), examiner respectfully disagrees and points out that Applicant must consider piece of art and take it in combination with other cited prior art when considering the merits of the rejection. Thus, after consideration of Applicant's arguments Examiner maintains this rejection.

32. As per Applicant's argument that prior art reference Zaleski fails to teach the language of claim 41 (i.e. *a workforce outcomes module for determining how effectively healthcare personnel have been used*), examiner respectfully disagrees and points out that Applicant must consider piece of art and take it in combination with other cited prior art when considering the merits of the rejection. Thus, after consideration of Applicant's arguments Examiner maintains this rejection.

33. Applicant's arguments for claims 42 & 43 are based on the dependency are substantially similar to Applicant's arguments for of claim 41, and thus are rejected for the same reason(s).

34. Applicant's arguments for claims 44 & 45 are based on the dependency are substantially similar to Applicant's arguments for of claim 41, and thus are rejected for the same reason(s).

35. Applicant's arguments for claims 46 & 47 are based on the dependency are substantially similar to Applicant's arguments for of claim 41, and thus are rejected for the same reason(s).

36. Applicant's arguments for claim 48 are based on the dependency are substantially similar to Applicant's arguments for of claim 41, and thus are rejected for the same reason(s).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJIV J. RAJ whose telephone number is (571) 270-3930. The examiner can normally be reached on Monday thru Friday 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry O'Connor can be reached on (571) 272-6787. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or (571) 272-1000.

/RJR/, Art Unit 3626

02/11/09

/Gerald J. O'Connor/  
Supervisory Patent Examiner  
Group Art Unit 3686